

## REMARKS/ARGUMENTS

The Office Action mailed May 19, 2003 has been reviewed and carefully considered. Claims 6 and 9-12 are canceled. Claim 1 has been amended. Claims 1-5 and 7-8 are pending in this application, with claim 1 being the only independent claim. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed May 19, 2003, claims 1-5 and 7-8 stand rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 5,740,736 (Toyoda) in view of U.S. Patent No. 5,925,496 (Ghosh) and Applicant's Admitted Prior Art (AAPA).

Before discussing the cited prior art and the Examiner's rejections of the claims in view of that art, a brief summary of the present invention is appropriate. The present invention relates to a solution for the problem caused by localized differences in temperature of a blanket on a transfer cylinder caused by non-uniform heating of the blanket and the resultant deformations which may occur in the transfer cylinder due to the temperature differences. According to the present invention, the solution involves making a transfer cylinder with a body made of a metallic material having a linear coefficient of about  $\alpha < 5 \times 10^{-6} K^{-1}$  in a temperature range of from about 20° to about 60°. More specifically, the metallic material is an iron alloy having 30% to 40% nickel by weight.

Independent claim 1 has been amended to clarify that the printing cylinder is a transfer cylinder on which a blanket cylinder is receivable on which localized temperature differences may occur. Independent claim 1 recites that the barrel of the transfer cylinder is "made of a metallic material having a linear coefficient of about  $\alpha < 5 \times 10^{-6} K^{-1}$  in a temperature range of from about 20° to about 60°."

As set forth in the MPEP §2142, an Examiner is required to set forth a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met: (1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is respectfully submitted that neither Toyoda, Ghosh, AAPA, nor the combination thereof provide motivation for using a metallic material having a linear coefficient of about  $\alpha < 5 \times 10^{-6} K^{-1}$  in a temperature range of from about 20° to about 60°, as the material for a transfer cylinder in a printing press.

Toyoda discloses a solution for determining printing pressure during thermal expansion of the printing cylinder. The problem that Toyoda overcomes is the inaccuracy in printing pressure measurement caused by thermal expansion of the printing cylinder. To overcome the problem, Toyoda teaches that the cylinder is an intaglio printing cylinder 30 (see col. 3, lines 59-60), which includes a notched portion and an effective impression area. Printing pressure is applied when the impression area bears against the impression cylinder 30 and printing pressure is not applied when the notch is against the impression cylinder (see col. 4, lines 9-31). Toyoda measures the head pressure when the printing pressure is applied and when the printing pressure is released and determines the printing pressure from the difference between these two head pressure values. Accordingly, Toyoda fails to provide any motivation for using a metallic material having a linear

coefficient of about  $\alpha < 5 \times 10^{-6} K^{-1}$  in a temperature range of from about 20° to about 60°, as the material for a transfer cylinder in a printing press, as expressly recited in independent claim 1.

Ghosh also fails to provide motivation to use the claimed material in transfer cylinder. Ghosh relates in general to lithography and in particular to new and improved lithographic printing members which do not require development with an alkaline developing solution (see col. 1, lines 28-33 and col. 2, lines 54-56). The Examiner refers to col. 7, lines 57-61 where Ghosh discloses that cores having iron and nickel may be used to hold the lithographic plates. However, Ghosh fails to provide any motivation for using a metallic material having a linear coefficient of about  $\alpha < 5 \times 10^{-6} K^{-1}$  in a temperature range of from about 20° to about 60°, as the material for a transfer cylinder in a printing press, as expressly recited in independent claim 1. Even if the materials taught by Ghosh were used in Toyoda, the combination still fails to teach or suggest the material of the claimed invention. Furthermore, since Toyoda solves the problem caused by thermal expansion by using an inventive method of measuring head pressure, there is no motivation to use a specific material to avoid the thermal expansion caused by the high temperatures.

Lastly, the AAPA merely discloses the existence of a metallic material having a linear coefficient of about  $\alpha < 5 \times 10^{-6} K^{-1}$  in a temperature range of from about 20° to about 60°. There is no motivation for using such a material for a transfer cylinder in a printing press, as expressly recited in independent claim 1. As stated above, since the problems in Toyoda caused by thermal expansion are solved using the inventive measurement method disclosed by Toyoda and because the materials disclosed in Ghosh fail to teach or suggest the claimed material, there is no motivation in Toyoda or Ghosh to use the claimed material, even though the material was in existence, as disclosed by AAPA.

It is impermissible to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). In the present application, only the claimed invention suggests the use of the claimed material in a transfer cylinder.

In view of the above amendments and remarks, it is respectfully submitted that independent claim 1 is allowable over Toyoda in view of Ghosh and AAPA.

Dependent claims 2-5 and 7-8, being dependent on independent claim 1 should be deemed allowable for the same reasons as is independent claim 1.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

Respectfully submitted,

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